

DISTRIBUTION OF *HARPALUS RUFIPES* DE GEER IN CANADA AND UNITED STATES (COLEOPTERA; CARABIDAE)¹

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ABSTRACT: The European ground beetle *Harpalus rufipes* DeGeer (Coleoptera: Carabidae) was introduced into maritime Canada prior to 1937. Adults were first collected in the United States at Orono, Maine in 1970. Four specimens were collected in New Hampshire in 1974, a southward range extension of 130 miles. Additional records for 395 specimens of *Harpalus rufipes* collected during 1977 and 1978 in southern New Hampshire show this species is well established in the state.

Harpalus rufipes DeGeer was introduced into the Canadian maritime provinces sometime during the 1930's. Brown (1950) presents evidence demonstrating how this carabid, and other ground-inhabiting Coleoptera, probably were transported by man and subsequently introduced into North America. It occurs in the paleartic region, as far east as eastern Siberia and Japan. (Lindroth, 1968)

Adults of this species average 12 mm in length, and are easily distinguished by the dense, semi-erect, golden hairs on the bases of both the pronotum and the elytra.

The earliest known North American specimens were taken in Canada at Charlottetown and Summerside, Prince Edward Island in 1937 (Morrison, 1941). Additional Canadian records of significance include: Kings County and Cape Breton Island, Nova Scotia, 1938 (Morrison, 1941; Lindroth, 1954); Tabusintac, New Brunswick, 1939 (Brown, 1940); Quebec, 1939 (Lindroth, 1968); southwest Newfoundland, 1949 - 1951 (Brown, 1950; Lindroth, 1955 and 1963); and Port-au-Saumon, Quebec, 1976 (Larochelle, 1976). The known distribution of *Harpalus rufipes* in North America is given in Fig. 1.

The first specimens to be taken in the United States were collected at Orono, Penobscot Co., Maine in 1970 (Larochelle, 1976). The species was first taken in southern New Hampshire in 1974. New Hampshire records of significance include: STRAFFORD CO.: Dover, 3-vii-1974, 17-vii-1978 (2), 21-vii-1978 (2) blacklight trap; Lee, 25-vii-1974 and 13-vii-1974 pitfall traps in cornfield; Durham, 1974 blacklight trap, 30-vi-1978 pitfall trap; Somersworth, 20-vii-1977 barrier pitfall trap; Statham, 13-vi-1978, 25-vi-1978, 28-vi-1978 (250), 29-vi-1978 (66), 10-vii-1978 (35), 13-vii-1978 (21) and 4-viii-1978 (4) blacklight trap; Madbury, 27-vi-1978 (8) blacklight trap; ROCKINGHAM CO.: Kensington, 2-vii-1978, 6-vii-

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1978, and 7-vii-1978 barrier pitfall trap. The New Hampshire distribution is given in Fig. 2.

Based on the large number of specimens collected in southern New Hampshire there is little doubt that *Harpalus rufipes* is well established in the area.

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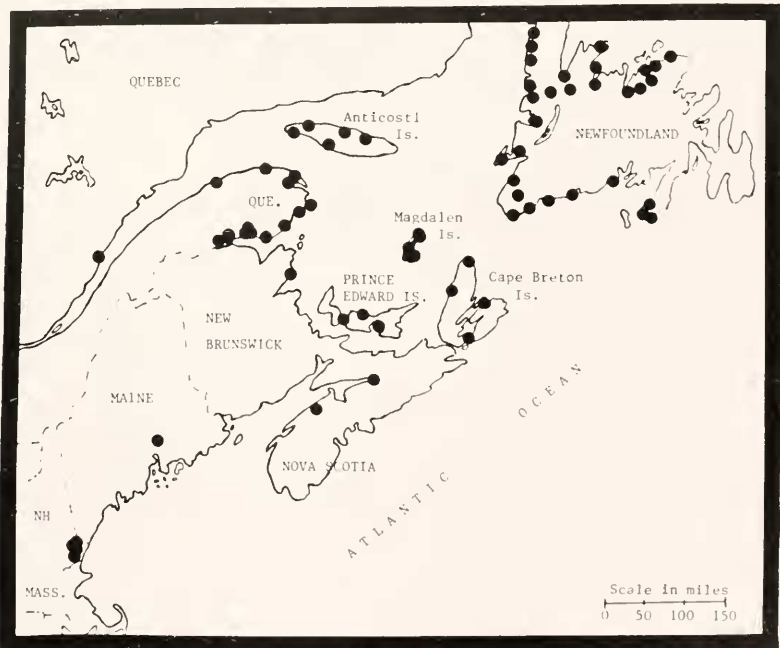


Fig. 1. The distribution of *Harpalus rufipes* DeGeer in North America.

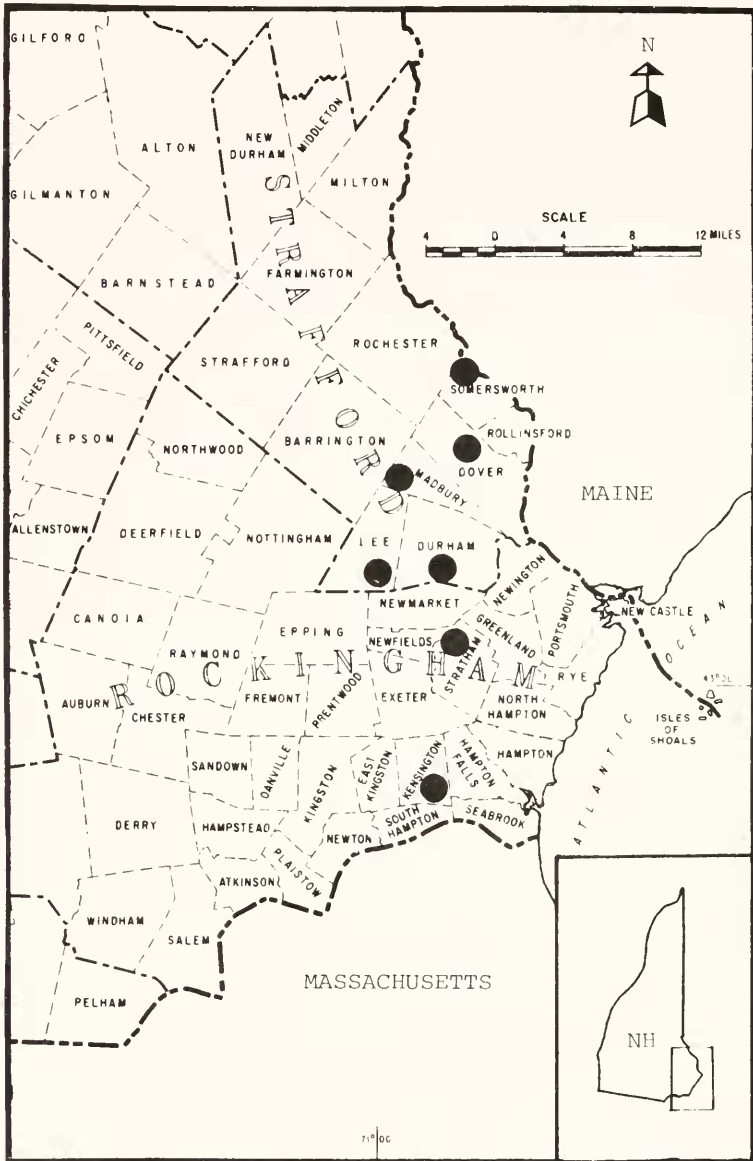


Fig. 2. The distribution of *Harpatus rufipes* DeGeer in southern New Hampshire. The inset map shows the location of the enlarged section of the state.